REMARKS

In the Office Action dated August 15, 2001, claims 1-42 are pending. Claims 34, 36-39 and 42 have been withdrawn from consideration without prejudice. Claims 1-33, 35 and 40-41 are rejected. The specification is objected to for certain informalities.

This Response addresses each of the Examiner's rejections and objections. Applicants therefore respectfully submit that the present application is in condition for allowance. Favorable consideration of all pending claims is therefore respectfully requested.

The specification is objected to because of the following informalities. The Examiner contends that the title of the invention is not descriptive and requires Applicants to provide a new title. The Examiner suggests the following title: "IL-16 ANTAGONIST PEPTIDES AND DNA ENCODING THE PEPTIDES".

Applicants have deleted the old title and substituted therefor the new title: "IL-16 ANTAGONIST PEPTIDES AND DNA ENCODING THE PEPTIDES", consistent with the Examiner's suggestion.

The Examiner also objects to the Brief Description of Drawings for Figure 6. According to the Examiner, the description of Figure 6 refers to two different blots probed with different antibodies ("upper panel" and "lower panel"). However, Figure 6 only displays one blot.

Applicants respectfully submit that Figure 6 does display two blots: the upper panel is blotted with polyclonal antibody, and the lower panel is blotted with monoclonal antibody, as indicated in Figure 6.

The Examiner also points out that the specification at page 12, lines 12-13 contains a blank U.S. Application Number.

Applicants have amended the specification to insert the appropriate Application Serial Number.

The Examiner further points out that the use of the trademark FICOLL-PAQUE at page 30, line 17, should be accompanied by the generic terminology.

Applicants have amended the specification to add the generic term "reagent" after the trademark FICOLL-PAQUE.

Moreover, the Examiner objects to the abstract because at line 7, the word "acid" is missing the letter "s".

Applicants have amended the Abstract to correct the typographical error.

In view of the foregoing, withdrawal of the objections to the specification is respectfully requested.

In the claims, claims 34, 36-39 and 42 are withdrawn from consideration as directed to non-elected embodiments. It is respectfully submitted that these claims have been canceled without prejudice by way of the instant amendment. Applicants reserve the right to file one or more divisional applications directed to the subject matter of these canceled claims.

The claims are objected to for the following informalities. Claims 6-7, 9, 14-15, 17, 19, 22-23, 25, 27, 33, and 35 recite a "." after the term "X_{aa2}". The word "peptide" in claim 33 should be made plural. The word "Ileu" in line 2 of claim 27 should be "Ile".

It is respectfully submitted that the claims have been amended by correcting the inadvertent typographical errors. As such, withdrawal of the objection to the claims is respectfully requested.

Claims 1-33, 35, and 40-41 are rejected under 35 U.S.C. §101 allegedly because the claimed invention is directed to non-statutory subject matter. The Examiner indicates that amending the claims to read "isolated" would be remedial.

In response, and in an effort to expedite favorable prosecution, claims 2-33 and 35 have been amended to add the term "isolated." Claims 1 and 40-41 under 35 U.S.C. §101 have been canceled without prejudice. Applicants reserve the right to pursue the subject matter of

these canceled claims in a continuing application. Withdrawal of the rejection of claims 1-33, 35 and 40-41 under 35 U.S.C. §101 is therefore respectfully requested.

Claims 1-33, 35, and 40-41 are rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking enabling support.

As submitted above, claims 1 and 40-41 have been canceled without prejudice. Thus, the rejection of claims 1 and 40-41 is rendered moot thereby. Claims 2-32 are directed to isolated IL-16 antagonist peptides. Claim 33 is directed to an isolated nucleic acid molecule coding for an IL-16 antagonist peptide. Claim 35 is directed a pharmaceutical composition comprising an IL-16 antagonist peptide and a pharmaceutically acceptable carrier.

The Examiner admits that the specification is enabling for an isolated IL-16 antagonist peptide consisting of the amino acid sequence of SEQ ID NOs: 2, 5, 6, 17, and 24 and a composition comprising an isolated IL-16 antagonist peptide consisting of the amino acid sequence of SEQ ID NO: 2, 5, 6, 17, and 24 and a pharmaceutically acceptable carrier. However, the Examiner contends that the specification does not reasonably provide enablement for an IL-16 antagonist peptide, or an IL-16 antagonist peptide consisting of the amino acid sequence of SEQ ID NOs: 3-4, 9-11, 13-16, 18-23, 25-32, and 34-38, or a composition comprising an IL-16 antagonist peptide and a pharmaceutically acceptable carrier.

The Examiner recognizes that the specification provides working examples to demonstrate that the isolated antagonist peptides of SEQ ID NOs: 2, 5, 6, 17, and 24 inhibit IL-16 stimulated human T lymphocyte cell migration (see, for example pages 34-35). However, the Examiner contends that the specification does not teach any methods or working examples to demonstrate that the isolated peptides of SEQ ID NOs: 3-4, 9-11, 13-16, 18-23, 25-32, and 34-38 are capable of inhibiting IL-16 mediated T lymphocyte migration. The Examiner argues that the specification does not teach that the isolated peptides of SEQ ID NOs: 3-4, 9-11, 13-16, 18-23, 25-32, and 34-38 retain the functional or structural characteristics of the isolated antagonist peptides of SEQ ID NOs: 2, 5, 6, 17, and 24. Therefore, the Examiner is of the opinion that in

the absence of supporting evidence, the assumption that the peptides of SEQ ID NOs: 3-4, 9-11, 13-16, 18-23, 25-32, and 34-38 have biological activities similar to the antagonist peptides of SEQ ID NOs: 2, 5, 6, 17, and 24 cannot be accepted. The Examiner states that the relevant literature reports examples of polypeptide families wherein individual members have distinct, and sometimes even opposite, biological activities.

Applicants respectfully submit that the specification does teach that all the claimed peptides share certain *structural characteristics*. For example, at page 10, lines 22-28, the specification provides that:

> "[I]t has been found that a series of peptides having sequences that substantially correspond to specific regions of the C-terminus of IL-16 can inhibit the activity of IL-16. Surprisingly, the present inventors have found that such IL-16 inhibiting peptides can be as short as 4 amino acids in length."

The specification further teaches that an IL-16 antagonist peptide of the present invention substantially corresponds to the C-terminal sequence of an IL-16 protein surrounding the Arg/Lys-Arg motif. See page 12, lines 19-25 of the specification, for example. Thus, the peptides as presently claimed all contain the Arg/Lys-Arg motif, and all correspond substantially to the C-terminal sequence of a naturally occurring IL-16 molecule. Hence, contrary to the Examiner's allegations, the IL-16 antagonist peptides of the present invention share common structural characteristics.

The specification further teaches that these shared common structural characteristics are attributed to the *function* of these peptides of antagonizing an IL-16 molecule. For example, the specification teaches that in an IL-16 antagonist peptide, the replacement of the first Arg residue in the Arg/Arg motif with Ala, or the replacement of both Arg residues with Ala, completely abrogated the antagonist property of the peptide. See page 37 of the specification, for example. On the other hand, substitutions of residues adjacent to the Arg/Arg motif often do not affect the antagonist activity of the peptide. See pages 34-35 of the specification, for example.

Based on these teachings of the present specification and the specific exemplification of the antagonist activities of IL-16 antagonist peptides of SEQ ID NOs: 2, 5, 6, 17, and 24, the skilled artisan readily appreciates, without undue experimentation, that peptides of SEQ ID NOs: 3-4, 9-11, 13-16, 18-23, 25-32, and 34-38 have biological activities similar to the antagonist peptides of SEQ ID NOs: 2, 5, 6, 17, and 24.

As support of Applicants' position, Applicants provide herewith the results (presented in two graphs, attached hereto as **Exhibit A**) of experiments conducted by the present inventors using peptide RRKSLQ**P**K (SEQ ID NO: 26), designated as "peptide 6" ("P" being a substitution of "S" in the wild type peptide sequence). Specifically, the effects of peptide 6 on IL-16 induced T-cell migration and on mixed lymphocyte reaction (MLR) were tested, following the procedure described in the specification at page 34 and page 39, respectively. Peptide 3, RRKSLQSK (SEQ ID NO: 24) was used in a separate set of experiments as a positive control. As shown in the attached graphs, peptide 6 effectively antagonized the IL-16 activity in these assays to the same extent as peptide 3.

In view of the foregoing, Applicants respectfully submit that the IL-16 antagonist peptides as presently claimed are supported by an enabled disclosure in full satisfaction of the requirements of 35 U.S.C. §112. As such, the rejection of claims 2-33 and 35 U.S.C. §112, first paragraph, is overcome. Withdrawal of the rejection is therefore respectfully requested.

Claims 35 and 41 have been rejected under 35 U.S.C. §112, first paragraph as allegedly lacking enabling support.

It is respectfully submitted that the rejection of claim 41 is rendered moot in view of its cancellation. Claim 35 is directed to a pharmaceutical composition comprising an IL-16 antagonist peptide and a pharmaceutically acceptable carrier.

The Examiner contends that the specification teaches a composition comprising an isolated IL-16 antagonist peptide consisting of the amino acid sequence of SEQ ID NOs: 2-7, 9-11, 13-32, and 34-38. The specification allegedly does not teach how to use an IL-16

"pharmaceutical" composition without undue experimentation for the treatment of a disease in an animal. The Examiner indicates that the rejection can be overcome by deleting the word "pharmaceutical" from the claims.

In response to the Examiner's contentions, Applicants respectfully submit that the present specification provides adequate teaching as to how to use the claimed pharmaceutical compositions. More specifically, the specification provides that the pharmaceutical compositions of the present invention can be employed for the treatment of IL-16-mediated pathological disorders, including asthma, rheumatoid arthritis, inflammatory bowel disease, Graves' disease, multiple sclerosis, lupus and bullous pemphigoid. The specification also provides general guidelines for the therapeutic effective dosages of an IL-16 antagonist peptide at pages 27-28. Moreover, the specification provides guidance as to the routes of administration of the claimed pharmaceutical compositions at page 28.

Applicants admit that those skilled in the art may conduct additional experimentation to optimize the dosage and route of administration in connection with the treatment of a particular disorder. However, such additional experimentation is routine to those skilled in the art. Necessary experimentation is not determinative of the question of enablement; only undue experimentation is fatal under the provisions of 35 U.S.C. §112, first paragraph. In re Wands, 858 F.2d 731, 736-737, 8 U.S.P.Q. 1400, 1404 (Fed Cir. 1988).

As support of the enablement of the present specification and as evidence of the routine nature of additional experimentation, Applicants provide herewith a report (attached hereto as **Exhibit B**) of the therapeutic effects of the 8-mer peptide, RRKSLQSK (SEQ ID NO: 24), and the 16-mer peptide, RRKSLQSKETTAAGDS (SEQ ID NO: 33), on antigen-induced early and late airway responses, airway hyperresponsiveness and airway inflammation in allergic sheep. The experiments described in the report were sponsored by the Assignee, Research Corporation Technologies, Inc.

Briefly, the animals were examined to determine baseline dose response curves to aerosol carbachol 1-3 days prior to antigen challenge. Then, on the day of antigen challenge, values of specific lung resistance (SR_L) were measured at baseline and, then, 30 min after drug or vehicle (0.9% saline) treatment. The animals were, then, challenged with Ascaris suum antigen and SR_L was remeasured immediately after challenge, hourly from 1-6 h after challenge and on the half-hour from 6 ½-8 h after challenge. Measurements of SR_L were obtained 24 h after challenge followed by the 24h post- challenge dose response curve.

The results were illustrated in the figures enclosed in Exhibit B. As can be seen from the top figure for the 16mer, aerosol treatment with 3mg of the 16mer protected the sheep against the antigen-induced late phase airway resistance (or "LAR", an indicator of asthma reaction). Consistent with this protection against the late response was the protection against the antigen-induced airway hyperresponsiveness (or "AHR") (bottom figure for the 16mer). Similar results were obtained with the 8mer peptide.

Taken together, these results demonstrate the therapeutic effects of IL-16 antagonist peptides in the treatment of asthma in an appropriate animal model. Significantly, Applicants submit that the methods used in these experiments, including measurement of airway mechanics, aerosol delivery, analysis of bronchoalveolar lavage fluid, and quantitating the antigen-induced responses, are all routine in nature and well known to those skilled in the art.

In view of the foregoing, it is respectfully submitted that the rejection of claim 35 under 35 U.S.C. §112, first paragraph, is overcome. Withdrawal of the rejection is therefore respectfully requested.

Claims 1-33, 35, and 40-41 are rejected under 35 U.S.C. §112, second paragraph as allegedly indefinite.

Regarding claims 1-33, 35 and 40-41, the Examiner alleges that the acronym and abbreviations "IL-16", "Arg", "Lys", "Thr", "Ala", "Ser", "Ile", "Val", "Leu" render the claims vague and indefinite.

Applicants respectfully submit that the meaning of the terms "IL-16", "Arg", "Lys", "Thr", "Ala", "Ser", "Ile", "Val", "Leu" as recited in the claims, are clear to those skilled in the art.

As to claims 2-33 and 35, the Examiner contends that the claims are indefinite because it is not clear whether it is an amino acid sequence or a nucleic acid sequence the claims are referring to.

It is respectfully submitted that the claims 2-32 are directed to "an isolated IL-16 antagonist peptide". Therefore, the sequences recited in the claims are clearly amino acid sequences. In addition, claims 33 and 35 do not refer to any sequence. Therefore, Applicants submit that claims 2-33 and 35 are not indefinite.

The Examiner further contends that claim 33 is indefinite, because it is unclear whether open or closed term language is intended.

It is respectfully submitted that claim 33, as amended, is not indefinite.

Additionally, the Examiner contends that claims 1-33 and 35 are indefinite for reciting the broad recitations such as $X_{aa0}RX_{aa1}X_{aa2}$ and RRKS, and respective SEQ ID NOs in parentheses, which is the narrower statement of the range/limitation. The Examiner states that the recitation of a broad limitation together with a narrow limitation is considered indefinite.

It is respectfully submitted that the respective SEQ ID NOs in parentheses merely specifies the sequence identifiers of the peptides, i.e., the SEQ ID NO in parenthesis represents the same (i.e., not narrower or broader) entity as the peptide immediately preceding the parenthesis. Accordingly, the claims are not indefinite.

In view of the foregoing, it is respectfully submitted that the rejection of the claims under 35 U.S.C. §112, second paragraph, is overcome. Withdrawal of the rejection is therefore respectfully requested.

Claims 1, 33, 35 and 40-41 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Center et al. (U.S. patent 6,159,463).

Center et al. teach isolated amino acid sequences that exhibit lymphocyte chemoattractant factor (LCF) antagonist activity. Center et al. also teach a composition comprising amino acid sequences that exhibit LCF antagonist activity (col. 7-8, 12-15).

It is respectfully submitted that claim 1 and 40-41 have been canceled without prejudice. Claims 33 and 35 have been amended to delete the reference to claim 1. As such, the rejection of claims 1, 33, 35 and 40-41 are rejected under 35 U.S.C. §102(b) is overcome. Withdrawal of the rejection is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the instant amendment. The attached page is captioned "**Version with Markings to Show Changes Made.**"

In view of the foregoing amendments and remarks, it is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

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Enclosures: Version with Markings to Show Changes Made; Exhibits A-B.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

Please amend the title as follows:

-- IL-16 [ANTAGONISTS] ANTAGONIST PEPTIDES AND DNA ENCODING THE PEPTIDES--

Please amend the paragraph beginning at page 11, line 25 as follows:

-- An IL-16 antagonist functions in two ways. The antagonist can compete with IL-16 for the cell surface receptor thereby interfering with, blocking or otherwise preventing the binding of IL-16 to an IL-16 receptor. This type of antagonist, i.e., which binds the receptor but does not trigger signal transduction, is also referred to herein as a "competitive antagonist" and is a feature of the present invention. Alternatively, an IL-16 antagonist can bind to or sequester IL-16 with sufficient affinity and specificity to substantially interfere with, block or otherwise prevent binding of IL-16 to an IL-16 receptor, thereby inhibiting, suppressing or causing the cessation of at least one IL-16-mediated biological activity, such as T-cell chemotaxis, for example. This type of IL-16 antagonist, also termed a "sequestering antagonist" is more specifically described in commonly-owned, co-pending application Serial No. [09/] 09/368,632, filed on August 5, 1999 and entitled "IL-16 Antagonists", the teachings of which are incorporated herein by reference.--

Please amend the paragraph beginning at page 30, line 12 as follows:

--Human peripheral blood mononuclear cells (PBMC) were isolated as described (Center, et al., *J. Immunol.* 128:256, 1982; Cruikshank, et al., *J. Immunol.* 128:2569, 1982 and

Cruikshank, et al., *J. Immunol.* 138:3817, 1987) from the blood of healthy volunteers by density centrifugation on Ficoll-Paque reagent (Pharmacia, Piscataway, NJ). The mononuclear cell layer was washed with medium 199 (M.A. Bioproducts, Walkersville, MD) supplemented with 0.4% bovine serum albumin, 25 mM HEPES buffer, and 100 U/ml of penicillin and 100 μg/ml streptomycin (M199-HPS). Samples were enriched for T lymphocytes by nylon wool adherence as described (Julius, et al., *Eur. J. Immunol.* 3:645, 1973). The nonadherent cells were >95% $CD3^+$ as determined by flow cytometry.--

Please amend the Abstract as follows:

--The present invention has found that a series of peptides having sequences that substantially correspond to specific regions of the C-terminus of IL-16 can inhibit the activity of IL-16. The present invention has demonstrated that such IL-16-inhibiting peptides can be as short as 4 amino [acid] acids in length. Based on these discoveries, the present invention provides IL-16 antagonist peptides and the use thereof for the treatment of IL-16 mediated disorders such as certain inflammatory diseases.--

In the claims:

Please cancel claims 1, 34 and 36-42 without prejudice.

2. (Amended) An isolated IL-16 antagonist peptide consisting of a sequence selected from the group consisting of RRKS (SEQ ID NO:2), RRTS (SEQ ID NO:3), KRKS (SEQ ID NO:4), RRAS (SEQ ID NO:5), RRKA (SEQ ID NO:6) and RRTA (SEQ ID NO:7).

3. (Amended) An isolated IL-16 antagonist peptide consisting of a sequence selected from the group consisting of RRKSLQ (SEQ ID NO:17), RRTSLQ (SEQ ID NO:18), RRKSCM (SEQ ID NO:19), KRKSMQ (SEQ ID NO:20), RRASLQ (SEQ ID NO:21), RRKALQ (SEQ ID NO:22) and RRTALQ (SEQ ID NO:23).

4. (Amended) An isolated IL-16 antagonist peptide consisting of a sequence selected from the group consisting of RRKSLQSK (SEQ ID NO: 24), RRTSLQCK (SEQ ID NO:25), RRKSLQPK (SEQ ID NO:26), RRKSCMSK (SEQ ID NO:27), KRKSMQSK (SEQ ID NO:28), RRASLQSK (SEQ ID NO:29), RRKALQSK (SEQ ID NO:30), RRTALQCK (SEQ ID NO:31) and RRASLQCK (SEQ ID NO:32).

5. (Amended) An isolated IL-16 antagonist peptide consisting of a sequence selected from the group consisting of RRTSLQCKQTTASADS (SEQ ID NO:34), RRASLQSKETTAAGDS (SEQ ID NO:35), RRKALQSKETTAAGDS (SEQ ID NO:36), RRTALQCKQTTASADS (SEQ ID NO:37) and RRASLQCKQTTASADS (SEQ ID NO:38).

6. (Amended) An isolated IL-16 antagonist peptide comprising $X_{aa0}RX_{aa1}X_{aa2}$ (SEQ ID NO:1), wherein X_{aa0} is Arg or Lys, and X_{aa1} and X_{aa2}[.] are any amino acids.

7. (Amended) The isolated IL-16 antagonist peptide of Claim 6, wherein X_{aa1} is selected from Lys, Thr, or Ala; and X_{aa2}[.] is selected from Serine or Ala.

8. (Amended) The isolated IL-16 antagonist peptide of Claim 6, wherein X_{aa0} is Arg.

9. (Amended) The isolated IL-16 antagonist peptide of Claim 8, wherein X_{aa1} is selected from Lys, Thr, or Ala; and X_{aa2}[.] is Ser or Ala.

10. (Amended) The isolated IL-16 antagonist peptide of Claim 6, wherein X_{aa0} is Lys.

11. (Amended) The isolated IL-16 antagonist peptide of Claim 10, wherein X_{aa1} is selected from Lys, Thr, or Ala; and X_{aa2}[.] is Ser or Ala.

12. (Amended) The isolated IL-16 antagonist peptide of Claim 8 or 10, wherein the tetrameric sequence coincides with the native sequence of a mammalian IL-16.

13. (Amended) An isolated IL-16 antagonist peptide comprising a sequence selected from the group consisting of RRKS (SEQ ID NO:2), RRTS (SEQ ID NO:3), KRKS (SEQ ID NO:4), RRAS (SEQ ID NO:5), RRKA (SEQ ID NO:6) and RRTA (SEQ ID NO:7).

14. (Amended) An isolated IL-16 antagonist peptide comprising $X_{aa1}X_{aa2}X_{aa0}R$ (SEQ ID NO:8), wherein X_{aa0} is Arg or Lys, and X_{aa1} and X_{aa2}[.] are any amino acids.

15. (Amended) The isolated IL-16 antagonist peptide of Claim 14, wherein X_{aa1} is Val and X_{aa2}[.] is Ile or Leu.

16. (Amended) The isolated IL-16 antagonist peptide of Claim 14, wherein X_{aa0} is Arg.

17. (Amended) The isolated IL-16 antagonist peptide of Claim 16, wherein X_{aa1} is Val and X_{aa2}[.] is Ile or Leu.

18. (Amended) The isolated IL-16 antagonist peptide of Claim 14, wherein X_{aa0} is Lys.

19. (Amended) The isolated IL-16 antagonist peptide of Claim 18, wherein X_{aa1} is Val and X_{aa2}[.] is Leu or Ile.

20. (Amended) The isolated IL-16 antagonist peptide of Claim 16 or 18, wherein the tetrameric sequence coincides with the native sequence of a mammalian IL-16.

21. (Amended) An isolated IL-16 antagonist peptide comprising a sequence selected from the group consisting of VIRR (SEQ ID NO:9), VLRR (SEQ ID NO:10) and VIKR (SEQ ID NO:11).

22. (Amended) An isolated IL-16 antagonist peptide comprising $X_{aa1}X_{aa0}RX_{aa2}$ (SEQ ID NO:12), wherein X_{aa0} is Arg or Lys, and X_{aa1} and X_{aa2}[.]are any amino acids.

23. (Amended) The isolated IL-16 antagonist peptide of Claim 22, wherein X_{aa1} is Ile or Leu and X_{aa2}[.] is Lys, Thr or Ala.

24. (Amended) The isolated IL-16 antagonist peptide of Claim 22, wherein X_{aa0} is Arg.

25. (Amended) The isolated IL-16 antagonist peptide of Claim 24, wherein X_{aa1} is selected from Ile or Leu and X_{aa2}[.] is Lys, Thr or Ala.

26. (Amended) The isolated IL-16 antagonist peptide of Claim 22, wherein X_{aa0} is Lys.

27. (Amended) The isolated IL-16 antagonist peptide of Claim 26, wherein X_{aa1} is selected from Leu or [Ileu] Ile; and X_{aa2}[.] is Lys, Thr or Ala.

28. (Amended) The isolated IL-16 antagonist peptide of Claim 24 or 26, wherein the tetrameric sequence coincides with the native sequence of a mammalian IL-16.

29. (Amended) An isolated IL-16 antagonist peptide comprising a sequence selected from the group consisting of IRRK (SEQ ID NO:13), IRRT (SEQ ID NO:14), LRRK (SEQ ID NO:15) and IKRK (SEQ ID NO:16).

30. (Amended) An isolated IL-16 antagonist peptide comprising a sequence selected from the group consisting of RRKSLQ (SEQ ID NO:17), RRTSLQ (SEQ ID NO:18), RRKSCM (SEQ ID NO:19), KRKSMQ (SEQ ID NO:20), RRASLQ (SEQ ID NO:21), RRKALQ (SEQ ID NO:22) and RRTALQ (SEQ ID NO:23).

31. (Amended) An isolated IL-16 antagonist peptide comprising a sequence selected from the group consisting of RRKSLQSK (SEQ ID NO:24), RRTSLQCK (SEQ ID NO:25), RRKSLQPK (SEQ ID NO:26), RRKSCMSK (SEQ ID NO:27), KRKSMQSK (SEQ ID NO:28), RRASLQSK (SEQ ID NO:29), RRKALQSK (SEQ ID NO:30), RRTALQCK (SEQ ID NO:31) and RRASLQCK (SEQ ID NO:32).

32. (Amended) An isolated IL-16 antagonist peptide comprising a sequence selected from the group consisting of RRTSLQCKQTTASADS (SEQ ID NO:34), RRASLQSKETTAAGDS (SEQ ID NO:35), RRKALQSKETTAAGDS (SEQ ID NO:36), RRTALQCKQTTASADS (SEQ ID NO:37) and RRASLQCKQTTASADS (SEQ ID NO:38).

33. (Amended) An isolated nucleic acid molecule coding for [any one of the] the isolated peptide according to any one of Claims [1] 2-4, 6, 14 or 22.

35. (Amended) A pharmaceutical composition comprising the isolated peptide of any of Claims [1] 2-4, 6, 14 or 22 and a pharmaceutically acceptable carrier.